allowing the microparticles to remain in contact with the skin surface for a time sufficient to permit a layer of microparticles to covalently attach to the skin surface.

2. The method of claim 1, wherein the surface available transglutaminase substrate reactive groups are lysines.

3. The method of claim 1, wherein the surface available transglutaminase substrate reactive groups are glutamines.

4. The method of claim 1, wherein the layer of microparticles is non-planar.

5. The method of claim 1, wherein the microparticles further comprise an active agent.

6. The method of claim 5, wherein the active agent is a non-nucleic acid active agent.

7. The method of claim 5, wherein the active agent is a non-protein active agent.

8. The method of claim 5, wherein the active agent is selected from the group consisting of a cosmetic agent, a bulking agent, a hair conditioning agent, a hair fixative, a sunscreen agent, a moisturizing agent, a depilatory agent, an anti-nerve gas agent, a film forming agent, a vitamin, an insect repellant, a coloring agent, a pharmaceutical agent, a ligand-receptor complex and a receptor of a ligand-receptor complex.

9. The method of claim 5, wherein the active agent is not itself a substrate of transglutaminase.

10. The method of claim 1, wherein the microparticles further comprise a synthetic polymer.

11. The method of claim 10, wherein the synthetic polymer is latex.

12. The method of claim 10, wherein the synthetic polymer is polystyrene.

13. The method of claim 1, wherein the microparticles are porous.

14. The method of claim 1, wherein the microparticles are 100 nm to 500 nm in size.

15. The method of claim 1, wherein the microparticles are 20 nm to 35 nm in size.

16. The method of claim 1, wherein the microparticles are non-biodegradable.

17. The method of claim 1, wherein the microparticles are detergent insoluble.

18. The method of claim 1, wherein the transglutaminase substrate reactive groups are part of a polymer.

19. The method of claim 18, wherein the polymer is covalently attached to the microparticle.

20. The method of claim 18, wherein the polymer is comprised of at least 50% lysines.

21. (Amended) The method of claim 18, wherein the polymer comprises a surface available terminus having at least 20% lysines or at least three contiguous linked lysines.

22. (Twice Amended) A method of treating a subject to attach microparticles to a skin surface containing endogenous transglutaminase of the subject comprising

contacting the skin surface containing endogenous transglutaminase with microparticles having surface available transglutaminase substrate reactive groups in an amount sufficient to attach the microparticles to the skin surface in the presence of the endogenous transglutaminase,

allowing the microparticles to remain in contact with the skin surface for a time sufficient to permit a layer of microparticles to covalently attach to the skin surface,

wherein the transglutaminase substrate reactive groups are part of a polymer, and

wherein the polymer comprises a polymer selected from the group consisting of polymers containing:

(a) at least two contiguous linked lysines,

(b) at least three contiguous linked lysines,

C1

(c) at least four contiguous linked lysines, and

(d) at least five contiguous linked lysines.

23. The method of claim 18, wherein the polymer is comprised of at least 50% glutamines.

24. (Amended) The method of claim 18, wherein the polymer comprises a surface available terminus having at least 20% glutamines or at least three contiguous linked glutamines.

C2

25. (Twice Amended) A method of treating a subject to attach microparticles to a skin surface containing endogenous transglutaminase of the subject comprising

contacting the skin surface containing endogenous transglutaminase with microparticles having surface available transglutaminase substrate reactive groups in an amount sufficient to attach the microparticles to the skin surface in the presence of the endogenous transglutaminase,

allowing the microparticles to remain in contact with the skin surface for a time sufficient to permit a layer of microparticles to covalently attach to the skin surface,

wherein the transglutaminase substrate reactive groups are part of a polymer, and

wherein the polymer comprises a polymer selected from the group consisting of polymers containing:

(a) at least five contiguous linked glutamines,

(b) at least ten contiguous linked glutamines,

(c) at least fifteen contiguous linked glutamines, and

(d) at least twenty contiguous linked glutamines.

26. (Previously Once Amended) A method of treating a subject to attach nonlabeling microparticles to a skin surface of the subject comprising

contacting the skin surface with nonlabeling microparticles having surface available transglutaminase substrate reactive groups in an amount sufficient to attach the nonlabeling microparticles to the skin surface in the presence of exogenous transglutaminase,

applying exogenous transglutaminase to the skin surface, and

allowing the nonlabeling microparticles and exogenous transglutaminase to remain in contact with the skin surface for a time sufficient to permit a layer of nonlabeling microparticles to covalently attach to the skin surface.

51. A kit comprising

a microparticle comprising surface available transglutaminase substrate reactive groups in an amount sufficient to attach the microparticle to a skin surface in the presence of endogenous transglutaminase, and

instructions for topically administering the microparticle to a skin surface.

75. The kit of claim 51, wherein the microparticle is provided in a topically administered form selected from the group consisting of an ointment, an aerosol, a gel, and a lotion.

76. (Previously Once Amended) A kit comprising

a nonlabeling microparticle having surface available transglutaminase substrate reactive groups in an amount sufficient to attach the nonlabeling microparticle to a skin surface in the presence of exogenous transglutaminase, and

instructions for topically administering the nonlabeling microparticle and transglutaminase to a skin surface.

77. The kit of claim 76, wherein the kit further comprises transglutaminase.

C3

102. (Amended) A composition comprising

a microparticle comprising an active agent and a polymer having transglutaminase substrate reactive groups, wherein the microparticle is non-biodegradable, and the transglutaminase substrate reactive groups are surface available, and the polymer comprises a polymer of amino acids having at least 20% lysines or at least three contiguous linked lysines.

117. The composition of claim 102, wherein the transglutaminase substrate reactive groups are surface available in an amount sufficient to attach the microparticle to a skin surface in the presence of endogenous transglutaminase.

118. The composition of claim 102, wherein the transglutaminase substrate reactive groups are surface available in an amount sufficient to attach the microparticle to a skin surface in the presence of exogenous transglutaminase.

C4

119. (Amended) The composition of claim 102, wherein the polymer comprises a polymer of amino acids and wherein at least 50% of the amino acids are lysine.

C5

123. (Amended) A composition comprising

a microparticle comprising an active agent and a polymer having transglutaminase substrate reactive groups, wherein the transglutaminase substrate reactive groups are surface available, and the polymer comprises a polymer of amino acids having at least three contiguous linked glutamines.

124. The composition of claim 123, wherein the transglutaminase substrate reactive groups are surface available in an amount sufficient to attach the microparticle to a skin surface in the presence of endogenous transglutaminase.

125. The composition of claim 123, wherein the transglutaminase substrate reactive groups are surface available in an amount sufficient to attach the microparticle to a skin surface in the presence of exogenous transglutaminase.

C6

135. (Twice Amended) The composition of claim 123, wherein the polymer is covalently linked to the synthetic polymer.

136. (Amended) The composition of claim 123, wherein the polymer comprises a polymer of amino acids and wherein at least 20% of the amino acids are glutamines.

143. (Previously Once Amended) A composition comprising

a microparticle comprising a non-nucleic acid nonlabeling active agent, and covalently attached surface available transglutaminase substrate reactive groups, wherein the microparticle is 100 nm to 500 nm in size.

144. (Previously Once Amended) The composition of claim 143, wherein the surface available transglutaminase substrate reactive groups are free pendant groups.

C7

145. (New) The method of claim 22, wherein the polymer is a polymer containing at least two contiguous linked lysines.